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AGRICULTURAL DEVELOPMENTS IN SOUTH ASIA . . .

Their Effects on U. S. Farm Exports

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U. S. DEPARTMENT OF AGRICULTURE

By Clarence E. Pike

Foreign Agricultural Service

U. S. DEPARTMENT OF AGRICULTURE

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Foreword

The author recently made a trip to South Asia to conduct a first-hand study of how the agricultural programs and plans were working out for countries in that area—India, Pakistan, Afghanistan, Ceylon, and Nepal.

In this report, he analyzes them, particularly their influence on the competition with and demand for United States farm products. He has attempted to present a realistic appraisal of the agricultural production goals set in the governments' development plans, and to forecast the trend of exports and imports for the main agricultural items of trade.

Mr. Pike's background made him particularly well qualified to undertake this study. As a regional specialist with the Foreign Agricultural Service, he has for several years been responsible for the South Asian area. His recent trip was his third to South Asia. And from 1952 to 1954, he served as United States Agricultural Attaché at the American Embassy, New Delhi, India.

Gustave Burmeister

GUSTAVE BURMEISTER,
Assistant Administrator.

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Agricultural Developments in South Asia . . .

Their effects on U. S. farm exports

By Clarence E. Pike, Chief, Far East Analysis Branch,
Foreign Agricultural Service

Summary

The countries of South Asia—India, Pakistan, Afghanistan, Ceylon, and Nepal—each have development programs extending over a period of years and calling for substantial increases in both agricultural and industrial production. Raising the standard of living of the people is the principal long-time goal of every country's program.

Since the economies of all South Asian countries are based on agriculture, its expansion and improvement are of course major elements in the programs. Everywhere, increased self-sufficiency is a leading objective; expanding the volume of products available for export is second only to self-sufficiency.

The agricultural expansion plans of the countries of South Asia call for increased production of cotton, wheat, rice, tobacco, oilseeds, and other commodities in which United States agriculture has a vital export interest. This could mean more competition in world markets or a declining demand for American farm products in this large and populous area of the world. However, all countries face major difficulties in achieving the goals that they have set. The production of farm products will almost undoubtedly increase in every country of the area in the next few years, but most of the increase will be needed for consumption in the producing country. Rapidly growing populations, the need to improve the present low living standards, industrial expansion requiring more agricultural raw materials, and numerous other factors make it appear that the United States will face only limited additional competition from South Asia in the sale of farm products abroad. Also, there will be little, if any, decline in South Asia's need for agricultural imports.

India

About 280 million of the approximately 350 million acres of cropland in South Asia are in India. Also, about 380 million of the area's nearly 500 million people live in India. Thus from many standpoints India dominates the agricultural and economic scene in South Asia.

The country's principal farm products that compete with United States products in international trade are flue-cured tobacco, vegetable oils, and certain staple lengths of cotton. India has been an important market in recent years for United States wheat, high-quality flue-cured tobacco, cotton of staple lengths 1$\frac{1}{16}$ to 1$\frac{1}{8}$ inches, and several other farm products.

India's agricultural production increased substantially during the First Five Year Plan that ended March 31, 1956. This Plan phased into the Second, which calls for an overall increase of 28 percent in farm output, including production boosts of 58 percent for cotton, 25 percent for food grains, and 37 percent for oilseeds. However, it appears that India's agricultural targets are set unrealistically high, particularly as certain of the favorable factors of the first Plan period are unlikely to be important in the Second. Therefore, over the next few years, only limited increases are expected in exports of farm commodities competitive with United States products. Also, little decline in the need for agricultural imports appears likely.

Pakistan

Pakistan is second to India in size, population, and agricultural production. However, owing to political difficulties and certain other unfavorable factors, Pakistan's agriculture has not made production gains equal to those of India. Cotton is the one commodity produced in substantial exportable quantities that is significantly competitive with a United States farm product in international trade. Sizable amounts of United States wheat, rice, cotton, vegetable oils, milk products, and tobacco are imported by Pakistan. However, most shipments have been made under various United States Government programs. Tobacco is the only commodity for which there has been a strictly commercial demand developed.

In May 1956 the draft of Pakistan's First Five Year Plan was released to the public. It calls for large boosts in farm and industrial output. For agriculture the Plan includes these increases in production: cotton, 38 percent; food grains, 13 percent; oilseeds, 29 percent; and tobacco, 16 percent. Although some increase in farm production is expected, it is unlikely that many of the targets will be achieved, as only limited changes have occurred in the conditions that retarded agriculture in the past. No increase in raw cotton exports can be expected and little decline in food grain import needs. Also, the need for United States tobacco and other farm products is expected to continue. Increased domestic production of consumer goods normally imported in large volume may result in some improvements in Pakistan's difficult foreign exchange situation.

Afghanistan

Afghanistan is almost completely an exporter of agricultural raw materials and a market for consumer and development goods. Principal exports are dried and fresh fruits, karakul skins, cotton, and raw wool. Some Afghan cotton exports to Japan and elsewhere are competitive with United States cotton exports.

Afghanistan's economic development projects are now being carried out within the framework of the Five Year Plan announced in January 1956. The major agricultural goal of the Plan is to increase the production and export of farm products in order to earn more urgently needed foreign exchange. Increasing the production and export of cotton appears to offer the best immediate chance of boosting foreign exchange earnings. Already, considerable newly irrigated land has gone into cotton. Output has increased substantially, and will further expand in the immediate future. Exports also will increase, particularly to the Soviet Union. However, Afghanistan's production of cotton is such a small part of the world total that the increase that may occur will have only negligible influence on world supplies and will not materially affect the competitive position of United States cotton.

Ceylon

The agricultural economy of Ceylon differs markedly from that of the other countries of South Asia. About two-thirds of its agricultural land is used to produce tea, rubber, and coconuts for export. About half its food must be imported.

Agricultural development is being carried out within the framework of a Six Year Program of investment. The main agricultural objectives are to produce all the food necessary to take care of the 3-percent annual increase in population, increase export earnings, and diversify peasant agriculture.

Ceylon is making progress in its development program, but for the immediate future agricultural production is not expected to get very far ahead of population growth. Ceylon will continue to be a substantial importer, on a strictly commercial basis, of rice, wheat flour, sugar, milk products, and tobacco. It will continue to be a major exporter of tea, rubber, and coconut products.

Nepal

Nepal's agriculture is primitive and its foreign trade is small. It is neither a competitor with nor a market for United States farm products.

The country's Five Year Plan was approved by the Nepalese Cabinet in July 1956. Agriculture is second only to transportation and communications in proposed expenditures. Although starting from a backward state, conditions appear reasonably favorable for progress. Some increase in agricultural production appears likely, but the increase is expected to be absorbed in the country, as many people are underfed. Thus, over the next few years little change in the present low level of foreign trade in farm products is to be expected.

TABLE 1.—*India: Estimated acreage and production of principal crops, 1954–56*[1]

Crop	1954		1955		1956	
	Acreage	Production	Acreage	Production	Acreage	Production
	1,000 acres	*1,000 metric tons*	*1,000 acres*	*1,000 metric tons*	*1,000 acres*	*1,000 metric tons*
Food grains:						
Rice (milled)	75, 949	25, 376	76, 700	26, 600	77, 500	27, 200
Wheat	27, 517	8, 919	29, 225	8, 482	....	....
Jowar (sorghum)	43, 446	9, 238	42, 721	7, 051	....	....
Bajra	27, 983	3, 476	27, 025	3, 454	....	....
Millets other than bajra	19, 510	4, 168	18, 722	4, 010	....	....
Corn	9, 311	2, 986	8, 909	2, 559	....	2, 600
Barley	8, 309	2, 916	8, 145	2, 765	....	....
Total food grains (excluding pulses)	212, 025	57, 079	211, 447	54, 921	....	....
Gram (chickpeas)	22, 047	5, 480	22, 902	4, 943	....	5, 200
Pulses other than gram	33, 253	5, 565	32, 198	5, 407	....	....
Total pulses	55, 300	11, 045	55, 100	10, 350	....	....
Total food grains (including pulses)	267, 325	68, 124	266, 547	65, 271	....	....
Oilseeds:						
Edible:						
Peanuts (shelled)	13, 548	2, 796	12, 692	2, 616	13, 101	2, 768
Rape and mustard	6, 025	1, 035	6, 262	845	6, 600	1, 040
Sesame	6, 501	598	5, 738	465	5, 257	446
Cottonseed	....	2, 232	....	2, 032	....	2, 181
Inedible:						
Flaxseed	3, 354	388	3, 424	382	3, 766	420
Castorseed[2]	1, 394	126	1, 462	128	1, 403	131
Total oilseeds	30, 822	7, 175	29, 578	6, 468	30, 127	6, 986
Special crops:						
Sugarcane	3, 994	....	4, 446	....	4, 700	....
Gur	....	2, 531	....	2, 413	....	2, 359
Refined sugar	....	1, 833	....	2, 123	....	2, 245
Tobacco	846	248	921	264	....	264
Potatoes	665	1, 790	693	1, 869	....	....
Tea	[3] 725	292	[3] 725	300	[3] 725	299
Coffee	246	25	264	34	....	35
Black pepper	208	26	214	28	....	28
Dry ginger	35	14	37	15	....	....
Dry chillies	1, 523	369	1, 492	345	....	....
Rubber	172	22	....	23	....	22
Copra[4]	....	[4] 576	....	[4] 558	....	[4] 560
Jute[5]	1, 243	590	1, 581	742	1, 634	744
Mesta	528	185	618	218	....	....
		[6] *1,000 bales*		[6] *1,000 bales*		[6] *1,000 bales*
Cotton	18, 684	4, 400	20, 230	3, 798	21, 500	4, 300
Total special crops	28, 869	....	31, 221	....	....	....

Footnotes are on opposite page.

India

The Republic of India embraces the larger geographical and population division of the Indo-Pakistan subcontinent. The country is bordered on the northwest by Pakistan, on the northeast by Communist China and Nepal, on the southeast by the Bay of Bengal, and on the southwest by the Arabian Sea. The total land area of India is placed at 1.2 million square miles. It contains a large part of the Indo-Gangetic Plain, which extends from the Bay of Bengal to the Afghan frontier and the Arabian Sea. This plain is one of the most densely populated and intensively cultivated areas of the world. Another distinct natural region is the Deccan, a plateau of 2,000 to 3,000 feet elevation, occupying a large part of the southern, or peninsular, portion of the country.

India ranks among the leading countries of the world as a producer, exporter, and importer of agricultural commodities. Over two-thirds of the estimated population of 380 million are engaged in tilling India's 280 million acres of cropland. Most of the farmland is devoted to growing rice, wheat, and other grains to feed the people. Jute goods, tea, vegetable oils, cotton, and cotton goods are the principal exports. Food grains and raw cotton account for the bulk of agricultural imports.

Since gaining independence in 1947, India has moved forward with programs for adjusting the country's agriculture to the imbalances resulting from the partition of Pakistan and to increasing production to provide a more adequate standard of living for its rapidly growing population. For a few years, production was pushed largely under the World War II created Grow-More-Food campaigns. A Five Year Plan, the leading goal of which was increasing self-sufficiency in farm products, was considered successfully completed on March 31, 1956. The First Plan was followed by a Second Plan, which also stresses agriculture but puts principal emphasis on the industrialization of the country.

Agricultural Situation

It is probable that no other country in the world produces the variety of agricultural products that India does. In fact, it grows practically every

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Footnotes for table 1.

[1] Agricultural year beginning July 1 and ending June 30.

[2] Acreage and production figures are for pure crop only, based on official estimates. Trade estimates usually place the total crop, including pure and interplanted crop, at roughly double the official estimate for pure crop.

[3] Plucked acreage.

[4] Copra equivalent of all coconuts produced.

[5] Acreage and production figures relate to calendar years 1954 and 1955.

[6] Bales of 500 pounds gross.

Source: Official crop estimate of the Government of India and other sources.

known crop to some extent. Nevertheless, the bulk of the cultivated acreage is devoted to a few basic crops. In 1955–56 the basic food grain and pulse crops occupied an estimated 267 million acres of the approximately 327 million (including double cropping) planted to all crops. Another 29 million was planted to oilseeds and over 20 million to cotton. Only an

TABLE 2.—*India: Exports of principal commodities - 1952–55* [1]

Commodity	Unit	Quantity			
		1952	1953	1954	1955
Jute bags	Millions	368	372	467	467
Jute burlap	Mil. yd	1, 237	1, 468	1, 380	1, 389
Tea	1,000 m. t.	194	213	208	183
Tobacco	1,000 m. t.	36	31	39	40
Cotton piece goods	Mil. yd	616	771	821	740
Other cotton manufactures	...	...	...	...	...
Raw cotton	1,000 m. t.	71	35	30	123
Mica	1,000 m. t.	14	13	19	26
Manganese ore	1,000 m. t.	1, 440	1, 568	990	921
Lac, all kinds, incl. shellac	1,000 m. t.	35	27	27	29
Coal	1,000 m. t.	2, 668	1, 907	1, 930	1, 458
Hides and skins	1,000 m. t.	38	39	37	35
Pepper	1,000 m. t.	13	13	14	13
Vegetable oils	Mil. gal	34	8	39	68
Other	...	...	...	...	...
Total exports	...	...	...	...	...

Commodity	Value			
	1952	1953	1954	1955
	Mil. U. S. dollars	*Mil. U. S. dollars*	*Mil. U. S. dollars*	*Mil. U. S. dollars*
Jute bags	128	85	119	114
Jute burlap	133	146	131	124
Tea	169	215	310	229
Tobacco	28	23	25	22
Cotton piece goods	129	134	133	119
Other cotton manufactures	31	33	23	30
Raw cotton	41	20	21	62
Mica	19	17	14	18
Manganese ore	46	51	27	23
Lac, all kinds, incl. shellac	16	14	22	25
Coal	21	14	12	9
Hides and skins	54	65	58	61
Pepper	34	27	15	10
Vegetable oils	50	10	42	72
Other	263	235	272	310
Total exports	1, 162	1, 089	1, 224	1, 228

[1] Fiscal years April through March.

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estimated 2.3 million acres, or less than 1 percent of the total, was devoted to jute and tea, India's major earners of foreign exchange.

Nearly all of India's exports are composed of agricultural raw materials or goods manufactured from farm products. Exports in 1955–56 were the equivalent of $1,228 million. Of this total, jute bags and burlap shipments totaled $238 million and tea some $229 million. Thus, these two categories represented nearly 40 percent of the total. Exports of raw cotton and cotton goods totaled $211 million; hides and skins, $61 million; vegetable oils, $72 million; and tobacco, $22 million. In addition, cashew kernel exports totaled $27 million; pepper and other spices, $22 million; raw wool, $20 million; and rice, $13 million.

India is primarily an importer of industrial and manufactured goods, but is also a substantial importer of a number of agricultural commodities. Raw cotton, rice, and wheat usually make up the bulk of farm imports. Imports of these commodities are, however, subject to wide year-to-year fluctuations dependent primarily upon the crop situation in India and the stock position within the country. Other agricultural imports of significance are raw jute, almonds and cashew nuts, coconut products, spices, canned and packaged foods, and milk products.

Most of India's agricultural export trade competes only indirectly, if at all, with United States exports of farm products. In fact, the United States is an imporant importer of a number of complementary products from India, such as jute burlap, cashew kernels, tea, lac, raw wool, goatskins, pepper, and castor oil. Nevertheless, some of India's important farm products do compete with America's in overseas markets. Principal of these are flue-cured tobacco, vegetable oils (principally peanut and linseed oils), and, to a limited extent, cotton.

Leading imports of agricultural interest from the United States include food grains, raw cotton, flue-cured tobacco, milk products, and packaged and canned food products. Food grains, principally wheat and milo, have in several recent years been important United States exports to India. Australia has been America's principal competitor in the sale of wheat. Since 1949–50 the United States has supplied a significant share of India's needs for foreign cotton of staple length $1\frac{1}{16}$ to $1\frac{1}{8}$ inches. However, the bulk of its requirements for foreign cotton of this type has in most years been met by East Africa, principally Kenya. The Sudan is also a source of significance. India is a traditional importer of high quality United States flue-cured tobacco for blending in the more expensive brands of cigarettes. The United States has faced little or no competition from other foreign sources, but a gradual decline in the market has occurred owing, at least in part, to some improvement in the quality of India flue-cured leaf. Much of the sale of American milk products has been surplus dry skim milk supplied under various United States Government programs. American packaged and canned goods go largely to the limited luxury trade and face stiff competition from similar items from soft currency sources.

Programs are under way for increasing India's self-sufficiency in most farm commodities that are now imported. The degree of success attained by these programs is likely to have more effect on United States sales than any action taken by foreign countries to increase their sales to India.

TABLE 3.—*India: Imports of principal commodities, 1952–55* [1]

Commodity	Unit	Quantity			
		1952	1953	1954	1955
Raw cotton	1,000 m. t.	138	116	123	118
Raw jute	1,000 m. t.	236	246	218	268
Wheat	1,000 m. t.	......	......	......	......
Rice	1,000 m. t.	......	......	......	......
Other grains and flour	......	......	......	......	......
Gasoline	Mil. gal	243	270	214	73
Kerosene	Mil. gal	268	299	310	234
Other petroleum products	Mil. gal	390	410	423	367
Iron and steel	1,000 tons	156	220	421	926
Agricultural machinery	......	......	......	......	......
Electrical machinery	......	......	......	......	......
Other machinery and equipment	......	......	......	......	......
Drugs and medicines	......	......	......	......	......
Fertilizers	1,000 m. t.	64	134	133	103
Chemicals	......	......	......	......	......
Other	......	......	......	......	......
Total imports	......	......	......	......	......

Commodity	Value			
	1952	1953	1954	1955
	Mil. U. S. dollars	*Mil. U. S. dollars*	*Mil. U. S. dollars*	*Mil. U. S. dollars*
Raw cotton	161	111	123	120
Raw jute	35	30	27	41
Wheat	172	80	27	25
Rice	90	28	115	10
Other grains and flour	67	44	2	2
Gasoline	54	65	52	19
Kerosene	46	58	59	41
Other petroleum products	62	55	62	55
Iron and steel	43	50	65	140
Agricultural machinery	9	8	9	9
Electrical machinery	36	40	33	42
Other machinery and equipment	139	142	137	196
Drugs and medicines	24	26	28	31
Fertilizers	4	7	4	5
Chemicals	27	27	38	45
Other	385	382	548	583
Total imports	1, 354	1, 153	1, 329	1, 364

[1] Fiscal years April through March.

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TABLE 4.—*India: Imports of cotton by country of origin, year beginning Aug. 1, average 1945–49, annual 1951–55*

Country of origin	Average 1945–49	1951	1952	1953	1954	1955
	1,000 bales [1]	*1,000 bales* [1]	*1,000 bales* [1]	*1,000 bales* [1]	*1,000 bales* [1]	*1,000 bales* [1]
Brazil	7	(2)	(2)	0	0	0
Egypt	249	116	204	221	125	184
Kenya	157	95	195	143	203	197
Pakistan	[3] 132	(4)	(2)	0	0	0
Peru	13	10	4	(4)	3	0
Sudan	30	44	63	43	60	108
Tanganyika	25	11	7	2	15	5
United States	71	746	77	148	87	8
Other	16	4	13	8	7	22
Total	[5] 648	1,026	563	565	500	524

[1] Bales of 500 pounds gross.
[2] If any, included in other countries.
[3] 3-year average.
[4] Less than 500 bales.
[5] Figures do not add to total because of Pakistan's 3-year average.

Accounts Relating to the Foreign Trade and Navigation of India and other sources.

National Planning

National planning has been a policy of India's ruling Congress Party since the 1930's. During that period Prime Minister Nehru, now Chairman of the Planning Commission, was Chairman of the Party's National Planning Committee. The work of this committee firmly established national planning in India. World War II further strengthened the trend toward overall planning. By 1945 the Viceroy's Executive Council included a member for planning and development.

Upon gaining independence in 1947 and the founding of the Republic in 1950, the government and people of India were faced with many problems. Among the outstanding were insufficient food production, widespread poverty, and underdevelopment of practically all of the country's resources. In March 1950 a planning commission was established by the government to assess the resources of the country and formulate practical plans for their development.

First Five Year Plan.—Despite much controversy as to what should be included, the planning commission in July 1950 presented a draft outline of a plan of development for the 5-year period April 1951 to March 1956. The plan included a number of development projects that were already under way as well as many not yet begun. Actual government expenditure on plan projects during the period of the First Plan totaled approximately $4.4 billion, about one-seventh below the target level. Of this total, 14 percent was spent on agriculture, 31 percent on irrigation and power, 4 percent on industry, 27 percent on transport, and 24 percent on social services. In addition, private investment was counted on to provide an average of $770 million a year, and it is believed that it reached this level.

TABLE 5.—*India: Exports of selected commodities, by principal countries of destination, 1954 and 1955* [1]

Commodity and country	Unit	Quantity		Value	
		1954	1955	1954	1955
				1,000 dollars	*1,000 dollars*
Peanut oil, total	1,000 gallons	29, 827	36, 256	26, 938	32, 950
Netherlands	do	12, 200	12, 462	10, 769	10, 226
Burma	do	6, 233	7, 572	5, 637	7, 350
Italy	do	169	4, 133	154	4, 925
Belgium	do	3, 345	2, 324	2, 932	1, 908
Other	do	7, 880	9, 765	7, 446	8, 541
Tobacco, unmanufactured	1,000 pounds	85, 031	88, 931	24, 706	22, 363
United Kingdom	do	37, 231	29, 571	17, 186	14, 279
Indonesia	do	319	11, 041	62	2, 138
China	do	15, 115	21, 330	1, 429	1, 834
Japan	do	5, 892	7, 733	970	651
Other	do	26, 474	19, 256	5, 059	3, 461
Cotton, raw, total	Metric tons	30, 419	122, 705	21, 394	62, 348
Japan	do	14, 837	57, 413	11, 313	28, 533
United Kingdom	do	4, 502	15, 509	2, 907	8, 559
Belgium	do	1, 527	8, 645	853	4, 023
Italy	do	891	5, 436	558	2, 663
Other	do	8, 662	35, 702	5, 763	18, 570
Cotton waste, total	do	61, 113	61, 467	21, 108	20, 353
Japan	do	11, 939	14, 518	5, 751	6, 001
United Kingdom	do	10, 382	12, 508	3, 720	4, 909
United States	do	13, 201	12, 084	2, 169	1, 874
Germany, Federal Republic of	do	5, 264	4, 628	1, 794	1, 618
Italy	do	3, 071	1, 246	1, 812	672
Other	do	17, 256	16, 483	5, 862	5, 279
Cotton piece goods, total	1,000 yards	820, 785	740, 280	132, 961	118, 923
Indonesia	do	27, 294	79, 348	4, 582	12, 881
United Kingdom	do	115, 691	81, 879	17, 727	12, 861
Nigeria	do	60, 414	67, 108	11, 343	12, 144
Ceylon	do	45, 505	45, 748	10, 643	10, 737
Malaya	do	49, 876	44, 821	9, 785	8, 754
Australia	do	39, 479	41, 194	8, 245	8, 271
Sudan	do	83, 571	65, 054	8, 909	6, 715
Aden	do	55, 753	41, 438	7, 793	5, 941
Kenya	do	36, 392	35, 302	5, 696	5, 173
Other	do	306, 810	238, 388	48, 238	35, 446

[1] Fiscal years April through March.

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Because of the difficult food and fiber situation that prevailed in 1950 and 1951, agricultural and related programs were given high priority in the First Five Year Plan. At the beginning of the Plan period the production of both food grains and many of the principal commercial crops was well below the minimum needs of the country. In the case of food grains alone, the deficit in 1950 at the existing low per capita level of consumption was in excess of 3 million metric tons. Food grains, sugar, and cotton cloth were subject to strict rationing and price controls. To overcome or reduce the deficiencies, the following increases in production were planned: food grains, 14 percent; cotton, 42 percent; jute, 63 percent; oilseeds, 8 percent; and sugarcane, 12 percent. Only jute and sugar failed to reach the target level by 1955–56. Food grain production exceeded the 1955–56 target level by 1953–54. In most respects the First Five Year Plan can be considered to have been successfully completed.

Second Five Year Plan.—The First Plan phased into the Second Plan, in which agriculture was also important but which emphasized industrialization more. The stated objectives of the Second Five Year Plan (April 1956–March 1961) are (1) rapid industrialization, with particular emphasis on developing basic and heavy industries, (2) a sizable increase in national income, so as to raise the level of living in the country, (3) a large expansion of employment opportunities, and (4) a reduction of inequalities in income and wealth.

The total investment envisaged in the Second Plan is almost double that of the First Plan, and, of the estimated expenditure of $16 billion, two-thirds is projected as government expenditures and one-third private expenditures. The breakdown of government expenditures has been forecast as follows: agriculture and community development, 11.8 percent; irrigation and power, 19 percent; industry and mining, 18.5 percent; transport

TABLE 6.—*India: Production targets under India's Five Year Plans, with comparisons*

Commodity	Unit	Estimated production base period[1]	First plan targets	Estimated production 1955–56	Second plan targets (original)	Second plan targets (revised)
Food grains	Mil. metric tons.	54.9	62.6	66.0	76.2	81.7
Oilseeds (major)	Mil. metric tons.	5.2	5.6	5.6	7.1	7.7
Sugar (unrefined)	Mil. metric tons.	5.7	6.4	5.9	7.2	7.9
Cotton	Mil. bales (500 lbs. gross).	[2] 2.3	3.4	3.4	4.4	5.2
Jute	Mil. bales (400 lbs. gross).	3.3	5.4	4.0	5.0	5.5

[1] Base period for food grains is 1949–50; for other crops 1950–51.

[2] Official estimates of the Government of India. Trade estimates, which are believed to be more reliable for cotton, are considerably higher.

Various official publications of the Government of India.

and communications, 28.9 percent; social services, 19.7 percent; and miscellaneous, 2.1 percent.

Agricultural targets.—Revised agricultural production targets in the Second Plan call for an increase of 28 percent in the total annual output of farm products by 1960–61, using 1955–56 production as a base. The targets originally set for the Second Plan called for an increase of 17 percent, but developing food shortages and the need for increased foreign exchange earning through the export of agricultural produce resulted in the government's revising the farm targets upward in November 1956.

The Plan as revised is for cotton production to be increased by 56 percent, food grains, 25 percent; oilseeds, 37 percent; sugarcane, 34 percent; jute, 58 percent; and other crops an average of 22 percent. The Plan is to accomplish this largely by devoting most of the effort of the Community Development and National Extension programs toward boosting farm output, through increasing the irrigated area from 67 million acres to 88 million, and by increasing the application of nitrogenous fertilizer from about 145,000 tons of nitrogen in 1955–56 to 400,000 tons by 1960–61. Land reclamation and improvement projects for 3.5 million acres are to be undertaken also.

Production Programs

Food grains.—The production of food grains occupies a pivotal role in the agricultural economy of India, where many people live near the margin of subsistence. India was a net importer of food grains even prior to World War II and, during the war period, production did not keep pace with the increase in population. The gap between supply and demand widened during the postwar period, especially after partition, and the country was faced with acute shortages and heavy imports. That is why production of food grains was given the highest priority when the First Five Year Plan was drawn up. Although production expanded beyond the target level, self-sufficiency was not achieved. However, per capita consumption levels improved somewhat and food grain imports could be cut.

The revised target of food grain production under the Second Five Year Plan has been fixed at 81.7 million metric tons. Major emphasis is to be placed on increasing production of rice and wheat. In setting up the target, consideration was given to the steady increases in populaton, higher rate of per capita consumption because of an expected increase in national income, shifts in consumption toward finer cereals—rice and wheat—especially in urban areas, and the need to counter inflationary pressures arising from more governmental spending on development programs.

The original targets for cereals and pulses in the Second Five Year Plan were expected to be achieved as follows: from major irrigation works, 24 percent; minor irrigation works, 18 percent; land reclamation and land development, 8 percent; fertilizers and manures, 25 percent; improved seed, 10 percent; and general improvement in agricultural practices, 15 percent.

Official statements made in connection with the upward revision of production targets in November 1956 indicate that much more is now expected from general improvements in agricultural practices; projects under this heading will receive priority attention in the Community Development and Agricultural Extension programs.

Commercial crops.—Although major emphasis in agriculture under the First Five Year Plan was on increasing the production of food grains, the importance of boosting the production of commercial crops was also recognized. Targets of additional production to be attained by 1955–56 were fixed for four of the important commercial crops—cotton, jute, oilseeds, and sugarcane. The First Plan target was exceeded for cotton and just attained for oilseeds. Although progress was made in jute and sugarcane, the targets were not reached.

The Second Five Year Plan places much greater emphasis on commercial crops. Increasing domestic demand, arising from the growth in population, increase in national income, and the greater tempo of industrialization, needs to be met. Also, increased foreign exchange earnings are vital to the country's development program and this can be accomplished only by boosting exports.

Cotton production increased from the official Indian estimate of 2.3 million bales (500 pounds) in 1950–51 to an estimated 3.4 million in 1955–56. The goal for 1960–61 has now been set at 5.2 million. A significant accomplishment in the First Plan period was the considerable progress made in the production of medium-staple cottons, but domestic production is still far short of demand. The Second Five Year Plan proposes to place even greater emphasis on the growing of medium and longer staple cottons. If the 1960–61 goal should be reached, India might attain a net export position although still requiring imports of certain staple lengths.

Only 19 percent of the jute acreage, but all the jute mills of undivided India, went to India at the time of partition. The First Plan target was for an increase from 3.3 million bales (400 pounds) in the base period to 5.4 million bales in 1955–56. Actual production in 1955–56 was only an estimated 4 million bales. The revised target for 1960–61 is 5.5 million bales. Emphasis is to be placed on quality improvement.

Oilseeds are important both for domestic consumption and export. The production of the five major oilseeds—peanuts, sesame, linseed, rape and mustard, and castor seed—went up from 5.2 million metric tons in 1950–51 to the target level of 5.6 million in 1955–56. The revised target for 1960–61 is 7.7 million tons. An export target of 217,000 metric tons of oil has been announced for 1960–61.

Sugar (unrefined) production failed to reach the target level of 6.4 million metric tons in 1955–56 but did increase from 5.7 million tons to 5.9 million tons during the period of the First Plan. The revised target for 1960–61 is 7.9 million tons.

The Second Five Year Plan also envisages the expansion of other crops like pepper, lac, cashew nuts, tea, coffee, and rubber. The target for tobacco production is set at 560 million pounds, or about the present level. Principal emphasis is being placed on improving quality; it is hoped to increase foreign exchange earnings from tobacco by the export of more higher-quality leaf.

Lac is an important foreign exchange earner; about 80 to 90 percent of domestic production is exported. Under the Second Five Year Plan it is proposed to increase the outturn from 44,700 metric tons in 1955–56 to 60,000 tons in 1960–61. Cashew nuts and pepper are also important foreign exchange earners. It is proposed to increase production of the former from 61,000 tons to 81,000 tons and the latter from 26,500 to 32,500 tons during the period of the Second Plan.

Production and other programs for the so-called plantation crops, tea, coffee, and rubber, have not been finalized. Between 1951–52 and 1955–56 tea production varied between 275,000 and 305,000 metric tons and exports from 183,000 to 213,000 metric tons. Government of India officials believe it will be possible to achieve a production of 318,000 metric tons and an export of 227,000 metric tons by 1960–61. The Coffee Board is considering a plan for expanding production from 25,400 tons to 48,800 tons. The program for rubber is largely based on replanting with higher-yielding varieties of trees.

Development Methods

Community Development and Extension.—The Government of India expects the Community Development and National Extension programs to bring about changes in agricultural production practices that will result in a high percentage of the increase contemplated under the Second Plan. Although these programs take into consideration rural life in its entirety, they are essentially agricultural education extension programs such as are found in the United States and many other of the more highly developed countries. When the agricultural targets of the Second Plan were revised upward, it was announced that at least 90 percent of the efforts under these programs would be devoted to boosting agricultural production.

The fundamental concept of the Community Development program is to arouse in the people a consciousness of their own condition and to develop in them a desire for self-help. Active assistance is given by the government through financial help and technical aid and guidance. The potentialities of this approach are enormous, but the vast majority of India's cultivators must yet be provided with the incentive to substantially increase production.

Irrigation.—The total area under irrigation in India increased from 51 million acres to 67 million acres over the period of the First Five Year Plan. An additional area of 21 million acres is expected to be brought under irrigation by March 1961. About 12 million acres is to benefit from large- and medium-scale projects, of which 9 million will be from projects under way at the beginning of the Second Plan. Some 9 million acres are to be brought under irrigation from minor works, which includes the construction of 3,600 tube wells to provide water for nearly 1 million acres. The percentage of irrigated area to planted area in the country is expected to increase from about 22 percent at the end of the First Plan period to 28 percent at the end of the Second. It is estimated that as a result of the major and minor schemes undertaken during the First and Second Plans, a total area of 106 million acres will be irrigated on full development. This will bring the irrigated area up to about 34 percent.

Fertilizers.—The consumption of nitrogenous fertilizers, both imported and domestically produced, is expected to increase from an estimated 145,000 tons of nitrogen in 1955–56 to 400,000 tons by 1960–61. The present domestic production of fixed nitrogen of about 76,000 tons (at the Sindri Plant in Bihar State) is expected to go up to 325,000 tons by the end of the Second Five Year Plan. At least four new fertilizer plants—to be located at Nangal, Neiveli, Rourkela, and Bombay—are being planned by the Government of India. Plans for the plant at Nangal in the Punjab are the most advanced, and the Nangal Fertilizer Company, Ltd., a semiautonomous government agency, has been established to supervise the plant's construction.

This plant will have a capacity of 70,000 to 80,000 tons of fixed nitrogen a year, and will use electricity from the nearby Bhakra Dam. Provisional planning for the plant at Neiveli envisions production of about 70,000 tons of fixed nitrogen annually in the form of urea and sulphate-nitrate from nearby lignite deposits. It is anticipated that the Rourkela plant will produce about 80,000 tons of fixed nitrogen annually. The plant at Bombay will have a potential production of 95,000 tons of fixed nitrogen annually in the form of urea and sulphate-nitrate.

Very little phosphatic fertilizer is used in India; 1955–56 consumption as P_2O_5 was only 12,100 tons. It is anticipated that this will go up to 120,000 tons by the end of the Second Five Year Plan.

Land reclamation.—During the Second Five Year Plan it is proposed to reclaim 1.5 million acres of land and to carry out land improvement measures on an additional 2 million acres through the Central and State Tractor Organizations and other agencies, and through manual labor of individual cultivators. One tractor training center has been established at Bhopal in Madhya Pradesh State, and another is planned, to provide adequate opportunities for training mechanics and drivers.

Outlook

Production.—Agricultural production is expected to expand, but by 1960–61 the overall gain is not likely to exceed the 17-percent increase visualized in the original targets of the Second Five Year Plan. The revised 28-percent goal appears too optimistic. However, there is little question that such a production increase is needed to fully achieve the Plan's principal objective: Rapid development of India's industrial potential.

The upward revision of India's agricultural targets appears too optimistic for a number of reasons. Two conditions favorable to increased outturn in the First Plan period are unlikely to be factors in the Second. One is that, on the average, better weather prevailed in 1951–56 than in the First Plan base period. Secondly, rapid recovery was possible in cases where production suffered setbacks because of World War II and the 1947 partition. Other leading factors that will slow the rate of progress are (1) administrative difficulties, especially the shortage of trained personnel, (2) restricted financial resources, particularly shortages of foreign exchange for the purchase of agricultural production goods and equipment, (3) the continued lack of incentive to produce on the part of much of India's peasantry, and (4) the government's socialistic policies, which tend to discourage private investment in agriculture, including the marketing and processing of farm products.

The greatest effort will be made to achieve the targets set for cotton and food grains. These commodities are basic in India; most of the income of the Indian worker is spent for rice or wheat and cotton cloth. More money in circulation, resulting from development expenditures, is leading to more demands for food and cloth. If they are not available in adequate quantity, damaging inflation is inevitable. Also, large imports of these items will drain off the foreign exchange needed for development goods. In fact, an upswing in the import of development goods since the beginning of the Second Five Year Plan has already resulted in a sharp decline in foreign exchange reserves. Despite its need, India is unlikely to achieve self-sufficiency in food grains and cotton during the Second Plan. Its total deficit in these commodities is expected to decline but little by 1960–61. However, some changes in the composition of the deficit may occur.

Most of the contemplated increase in cotton production—largely of American upland type—will be absorbed by Indian mills, to supply the projected rise in annual per capita consumption of cotton cloth from 15 yards to about 18 yards. Exports of cheap cloth are likely to expand, too. The rest of the increase—of the short staple native type—will provide somewhat larger quantities for export and cut import needs some.

The 25-percent boost in food grain production, visualized in the revised Second Plan, will be needed by 1960–61 if India is to approach self-sufficiency in food grains. However, despite the effort being made to reach the goal, the more modest 15 percent originally set was unquestionably more realistic. It appears that India will continue to be a food grain deficit country for some years to come.

It is likely, however, that the outturn of such foods as milk, fruits, and vegetables will increase enough to allow for a slight improvement in the quality of the diet of the average Indian. The contemplated modest boosts in production of such items are not expected to change India's trade.

Exports.—The composition and level of India's exports in future years are of vital significance.

In the overall level of exports, only a small increase is expected. The value of exports in 1960–61 is projected in the Second Five Year Plan at $1,295 million compared with $1,228 million in 1955–56 and $1,224 million in 1954–55. Thus, for years to come India will very probably need to closely husband its foreign exchange earnings.

On a quantitative basis, tea exports are projected in the Plan at what appears to be a reasonable level of 213,000 metric tons in 1960–61, compared with shipments of 183,000 metric tons in 1955–56 and 208,000 in 1954–55. Exports of jute manufactures are projected at about 890,000 tons in 1960–61 contrasted with 907,000 in 1955–56 and 854,000 in 1954–55. Cotton piece goods exports are expected to rise from 740 million yards in 1955–56 to 1 billion yards in 1960–61. It is believed that exports of raw cotton will probably be at about the average of recent years. The government hopes to maintain the high 1955–56 export level of 68 million gallons of vegetable oils, but this appears unlikely. Little increase in total tobacco exports is expected, but an improvement in quality is anticipated. And a fairly significant increase in exports of cashew nuts, black pepper, and lac are believed likely to occur.

United States agriculture is particularly interested in the level of exports of farm commodities that compete with it in international trade. Of the above, only three commodities are considered significantly competitive—flue-cured tobacco, vegetable oils, and raw cotton comparable to the shorter staple lengths grown in the United States. Of these three, only flue-cured tobacco seems likely to offer increased competition in world trade. Total tobacco exports are expected to remain about steady, but India's program to improve the quality of its flue-cured leaf may well result in larger shipments of higher-priced leaf to Western Europe in competition with United States leaf. If this occurs, a decline in India's sales of low-grade tobacco to Communist China, Japan, and certain other Asian countries is considered probable.

The increase in exports envisaged over the Plan period are not very striking. India's foreign exchange earnings are derived from a few commodities. Three of them—tea, jute manufactures, and cotton piece goods—account for one-half of the total. These major exports are encountering stiff competition from other countries. Therefore, considerable effort may be expected to diversify and further develop the export market for a wide range of agricultural items. These will consist almost entirely of commodities complementary with United States farm production.

Imports.—Imports in 1960–61 are projected in the Second Five Year Plan at $1,650 million, compared with $1,364 million in 1955–56 and $1,329 million in 1954–55. Agricultural items account for 25 percent of the projected 1960–61 total, compared with 28 percent in 1955–56, and no drastic change in the composition of agricultural imports is expected. Raw cotton is ranked first in both periods, followed in second place by grains, then by pulses, flour, and raw jute.

Average annual imports of raw cotton by the end of the Plan period are expected to total at least a half-million bales (500 pounds gross). Part of this anticipated import demand will be for extra long staple cotton, but a goodly share will continue to consist of staple lengths commonly exported from the United States and East Africa. As in the past, the source of such imports will probably be determined largely by price and other competitive factors of a normal commercial nature.

For some years to come India's average annual food grain import requirements are expected to total about 2 million tons, more or less equally divided between rice and wheat. Even in the best of crop years, large imports will be needed to feed the people of the major port cities and chronic deficit producing areas. For both political and economic reasons, rice imports are expected to come mostly from nearby countries, but the sources of wheat will largely be determined by strictly commercial considerations.

India's imports of tobacco are expected to remain at about the level of recent years—some 3 million or 4 million pounds annually. They will continue to consist principally of United States flue-cured leaf for blending with domestic tobaccos in the higher-quality cigarette brands. There is little expectation of increased takings since the quality of India's domestically grown flue-cured is being gradually improved and the government is expected to continue to restrict severely the foreign exchange it releases for tobacco imports.

If the country's foreign exchange situation permits, India can be expected to gradually increase imports of milk and milk products, fruits, and canned and packaged foods. There is a growing demand for such commodities. More people are becoming familiar with Western foods and find that they like many of them. Also, the Indian people, like those of many other nations, are becoming more diet and nutrition conscious. However, the low-purchasing power of the Indian masses will hold down to a relatively small volume the effective demand for these more-expensive food items.

Raw jute from Pakistan will continue to be a leading item of import, as it is unlikely that India's domestic jute production will be sufficient to meet mill requirements. Most of the Pakistan jute will be reexported in the form of jute manufactured goods.

Pakistan

The Republic of Pakistan comprises two units, East Pakistan in the east and West Pakistan in the northwestern part of the Indo-Pakistan subcontinent. The two units are separated from one another not only by a thousand miles of Indian territory but also by marked differences in soils, climate, language, and culture. Pakistan's total area of 365,907 square miles is equal to the combined areas of Texas, Louisiana, and Mississippi. East Pakistan comprises 54,501 square miles and West Pakistan 311,406.

The economy of the country is largely based on farming, and plans for extensive agricultural expansion have been developed by the government. These plans call for a substantial boost in the production of cotton and several other commodities important in United States export trade. Therefore, if Pakistan's agricultural plans should be successful, United States agriculture would likely be faced with increased competition in the export of certain farm products. However, it appears unlikely that the country will be able to achieve the substantial increases in agriculture that have been visualized.

Agricultural Situation

The area planted to crops in Pakistan totals approximately 56 million acres. About 70 percent of East Pakistan is cultivated, but, in West Pakistan, less than 15 percent is used for growing crops, owing to the rugged terrain and arid climate. Eighty-three percent of the cultivated land is in food crops for domestic consumption. Rice covers about 44 percent; wheat, 22 percent; pulses (principally chickpeas), 8 percent; cotton and jute, the main export crops, 10 percent.

TABLE 7.—*Pakistan: Estimated acreage and production of principal crops, 1954–56* [1]

Commodity groups	1954		1955		1956	
	Acreage	Production	Acreage	Production	Acreage	Production
	1,000 acres	*1,000 metric tons*	*1,000 acres*	*1,000 metric tons*	*1,000 acres*	*1,000 metric tons*
Food grains:						
Rice (milled)	23,700	8,540	23,500	8,006	24,200	9,123
Wheat	10,524	3,657	10,650	3,223	11,289	3,526
Gram	3,102	659	3,345	731	....	....
Other foodgrains [2]	5,904	1,363	6,102	1,441	....	....
Oilseeds:						
Cottonseed	....	549	....	562	....	....
Rape and mustard	1,803	323	1,902	330	....	....
Other oilseeds [3]	288	51	297	51	....	....
Fiber crops:						
Cotton	3,185	[4] 1,300	3,540	[4] 1,420	3,384	[4] 1,400
Jute	1,243	907	1,634	1,234	1,671	1,306
Special crops:						
Sugarcane	1,017	12,472	1,014	12,270	997	12,455
Tobacco	237	119	239	122	238	122
Tea	74	24.8	75	24.2	76	26.3

[1] Agricultural year beginning July 1, ending June 30.

[2] Jowar (grain sorghum), bajra (millet), corn, barley, and pulses other than gram.

[3] Sesame, linseed.

[4] Thousands of 500-pound bales (gross weight).

Various releases of the Pakistan Ministry of Food and Agriculture and other sources.

TABLE 8.—*Pakistan: Total value of commodity exports and percentage distribution of export earnings by commodities, 1948–54* [1]

Commodity	1948	1949	1950	1951	1952	1953	1954
Total value all commodities (in millions of U. S. dollars) [2]	586	398	851	670	503	429	408
Percentage distribution:	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Raw jute	68	44	43	50	37	43	49
Raw cotton	21	33	39	39	46	39	24
Raw wool	2	3	3	1	4	4	3
Hides and skins	2	3	3	2	3	3	3
Black tea	2	4	1	2	2	2	5
Other	5	13	11	6	8	9	16
Total	100	100	100	100	100	100	100

[1] Year beginning July 1.

[2] Approximate value in U. S. dollars at the official rate of exchange.

Central Statistical Office, Government of Pakistan.

Other important crops are oilseeds, millets, grain sorghum, sugarcane, tobacco, and tea. Ninety percent of the rice is produced in East Pakistan, and 99 percent of the wheat, in West Pakistan. Yields are very low for practically all crops.

About 90 percent of the population, which totals some 83 million, is engaged in agriculture. Farmers, about 70 percent of whom are tenants, generally till less than 5 acres, using oxen and primitive wooden plows. The average level of living is about as low as any in the world. Per capita food consumption is estimated at 2,000 calories a day. Of this total, food grains and pulses account for an estimated 1,435.

Pakistan has been considered as almost exclusively an exporter of agricultural raw materials and an importer of manufactured goods. This is still essentially the situation, but it is changing. Raw cotton and raw jute account for about three-fourths of total earnings from exports. Hides, skins, wool, and tea account for most of the remainder, but a trickle of manufactured exports have developed from the country's new industries.

Cotton is the only agricultural commodity that Pakistan normally produces in exportable quantities that may be considered significantly competitive with United States farm products in foreign markets. Japan and Communist China are the leading export markets for cotton, followed by the United Kingdom, France, and Hong Kong.

Agricultural import needs were long considered to consist largely of tobacco, sugar, and vegetable oils, but in several recent years food grain imports to the extent of several hundred thousand tons have been necessary. Long considered a food grain surplus area, Pakistan is now barely self-sufficient only in good crop years; heavy imports have been required in 7 of the past 10 years. Also, some longer staple foreign cotton is now required for the better quality cloth made in the greatly expanded textile industry.

TABLE 9.—*Pakistan: Exports of cotton by country of destination, year beginning Aug. 1, annual 1947 and 1951–55*

Country of destination	1947 [1]	1951	1952	1953	1954	1955
	1,000 bales [2]	*1,000 bales* [2]	*1,000 bales* [2]	*1,000 bales* [2]	*1,000 bales* [2]	*1,000 bales* [2]
United States	34	(3)	9	12	12	22
Austria	(3)	2	6	3	3	4
Belgium	109	(3)	27	15	16	15
France	54	60	80	72	47	82
Germany, West	0	26	89	32	21	34
Italy	72	59	52	62	32	31
Netherlands	21	1	9	3	3	7
Spain	44	19	48	9	(3)	0
Sweden	12	(3)	15	10	7	4
United Kingdom	74	67	103	88	63	54
USSR	114	0	63	0	0	0
China	73	301	97	153	101	127
French India	0	6	10	19	3	0
Hong Kong	44	66	101	97	71	51
India	114	(3)	0	0	0	0
Japan	44	234	517	262	226	266
Union of South Africa	0	1	1	2	2	3
Australia	27	8	26	35	23	20
Other	14	[4] 69	[5] 20	[6] 19	4	3
Total	850	919	1,273	893	634	723

[1] Aug. 15 to July 31, partition from India effective Aug. 14, 1947.
[2] Bales of 500 pounds gross.
[3] Less than 500 bales.
[4] Includes 52,000 to Poland and 10,000 to Czechoslovakia.
[5] Includes 11,000 to Syria.
[6] Includes 5,000 to Syria and 5,000 to Bulgaria.

Government of Pakistan, Ministry of Commerce and Education, and other sources.

There has been an increasing commercial demand from Pakistan's growing cigarette manufacturing industry for United States tobacco (principally flue-cured leaf) for blending in the higher-quality cigarette brands. Prior to 1950 the United States exported only negligible quantities of tobacco to Pakistan. Shipments in that year totaled 1,006,000 pounds. Since then the trade has shown a steady upward trend and, in 1955, shipments totaled 2,614,000 pounds. However, except for this commodity no significant volume of strictly commercial trade in United States farm products has developed with Pakistan.

Nevertheless, Pakistan has become an outlet for United States wheat, rice, cotton, dairy products, and a little vegetable oil. Most shipments have, however, been made on other than strictly commercial basis—loans and grants, sales under U. S. Public Law 480 for local currency, military aid, disaster relief, etc. The country's needs have been great, but its export earnings have not been sufficient to pay for all its urgent import needs.

United States imports from Pakistan are much less than shipments to Pakistan. The great bulk of imports consists of a few agricultural items. Jute leads, followed by wool, hides and skins, and raw cotton.

Development Plans

Since the attainment of independence, the leaders of Pakistan have been fully aware of the pressing need for rapid economic development of the country. Early in 1948 a Development Board was established by the Government of Pakistan. This board dealt with the problems of economic development, and a number of projects were undertaken on its recommendation. In 1950 a 6-year Development Plan was formulated. However, this was essentially an outline plan and delineated only a broad pattern of development. Since independence, the economic and social objectives of government policy have been promulgated on numerous occasions. They are the rapid development of resources so as to promote the welfare of the people, provide adequate living standards and social services, secure social justice and equality of opportunity, and aim at the widest and most equitable distribution of income and property.

TABLE 10.—*Pakistan: Five Year Plan crop targets announced by the Government of Pakistan in May 1956*

Commodity	Unit	Production in base period [1]	Production target for 1959–60	Percentage increase planned
Food grains:				
Rice	1,000 metric tons	8, 453	9, 399	11
Wheat	do	3, 490	4, 084	17
Maize	do	401	503	25
Jowar	do	244	274	13
Bajra	do	361	412	14
Barley	do	132	147	13
Total food grains	do	13, 081	14, 819	13
Fiber crops:				
Jute	1,000 bales (400 pounds).	5, 592	6, 070	9
Cotton	1, 000 bales (500 pounds).	1, 335	1, 843	38
Other crops:				
Pulses	1,000 metric tons	924	1, 016	10
Oilseeds (including cotton seed).	do	904	1, 163	29
Fruits	do	2, 677	3, 038	14
Vegetables	do	1, 590	1, 961	23
Sugarcane (gur equivalent)	do	1, 077	1, 483	38
Tea	Million pounds	52. 8	60. 7	15
Tobacco	do	260	300	16

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[1] Base period production estimates are those computed by the Government of Pakistan and may vary slightly from estimates of the Foreign Agricultural Service. For food grains, gram, sugarcane, oilseeds and tobacco the 1948–55 average is used as a base; for cotton, 1954–55; jute, 1955–56; for tea the 1951–55 average; and for other products the average of data available for the years 1948–49 to 1953–54.

"The First Five Year Plan 1955–60" issued by Planning Board, Government of Pakistan, May 1956.

In July 1953 the Government of Pakistan announced the appointment of a Planning Board with the following terms of reference: (1) To review the development that had taken place since independence, (2) to assess the resources available for development purposes during the period April 1954–March 1959 (later changed to 1955–60), (3) to prepare a national plan of development based on the fullest possible utilization of these resources, (4) to make proposals regarding the administrative machinery best calculated to assure the successful implementation of the Plan, and (5) to make any other recommendations that might contribute to the success of the Plan.

Five Year Plan.—The draft of Pakistan's first Five-Year Plan was released to the public in May 1956. The Plan calls for a total development expenditure during the 5-year period ending March 31, 1960, of the equivalent of $2,442 million. Financing from domestic sources is expected to be available to the extent of $1,558 million, leaving a gap of $884 million to come from foreign sources. The Planning Board projects that foreign investment will reduce this gap by about $84 million, and the hope is expressed that the balance of $800 million may be made available in the form of foreign grants and loans.

Among the main targets included in the Plan are increased production of food grains, a large expansion of land under irrigation, extension of the Village-Aid program to 26,000 villages (which will include about one-fourth of the rural population), a net increase of 580,000 kilowatts in generating capacity (which will mean a total capacity in 1960 of about 860,000 kilowatts), construction of 250,000 new housing units of which 100,000 will be for refugees, an increase in industrial production of about 70 percent, and a substantial increase in foreign exchange earnings.

Production Targets

The Five-Year Plan calls for an overall increase in food grain production of 13 percent. Individual grains have these targets: Rice, 11 percent; wheat, 17 percent; corn, 25 percent; grain sorghums, 14 percent; and barley, 13 percent. For principal export crops, the Plan provides for an increase in production as follows: Cotton, 38 percent; jute, 9 percent; and tea, 15 percent. The other major agricultural targets are for increased production of pulses, 10 percent; oilseeds, 29 percent; tobacco, 16 percent; fruits, 14 percent; vegetables, 23 percent; and sugarcane, 38 percent.

More than half of these increases must be brought about by upping per acre yields, although new areas are expected to come under cultivation.

The crop production targets are based on the desire for a higher standard of consumption for a larger population, the growing raw material needs of domestic industry, and the pressing need to boost exports to increase foreign exchange earnings. The food grain targets would make possible a small increase in per capita consumption. The jute target is designed to keep supplies in balance with domestic and export demands. The big increase set for cotton is necessary to meet the growing demand from the domestic milling industry and still maintain exports at the average of recent years.

Development Programs

The means by which it is planned to bring about the very substantial increases in agricultural production include bringing new land under irrigation, increasing the arable area, educating the cultivator to the use of improved techniques, increasing the availability of fertilizers, insecticides, improved seed, and so forth, and widely adopting practically all known means of increasing crop and livestock production. However, hopes for attaining the targets are largely concentrated in and dependent upon the irrigation and land reclamation and Village-Aid programs.

Irrigation and land reclamation.—A large development program of irrigation and land reclamation was under way in Pakistan in 1955, and is expected to be continued during the period of the first Five-Year Plan and beyond. According to the Plan, in the 5-year period between 1955 and 1960, some 5 million acres will be provided with new or improved irrigation, and another 2 million acres will be improved by drainage canals and flood control measures or reclaimed from salinity and waterlogging. Most of the projects under way are located in the dry west wing of the country, where vast unused tracts of land need water to make them productive. Although total annual rainfall is high in the east wing most of it falls during the summer months, thus making irrigation desirable during the winter season. Therefore, the Plan also calls for greatly increasing the irrigation program in East Pakistan.

Without the Indus River and its tributaries, *West Pakistan* would be a desert. The irrigated lands in this area produce practically all of Pakistan's cotton and wheat as well as considerable rice and many other crops. The partition from India in 1947 brought many problems as the boundary between the two countries cut across the irrigation system. The Indus is fed by five main tributaries, all of which flow through India or Indian-occupied Kashmir before reaching Pakistan. Both India and Pakistan want water from the tributaries to feed canals which irrigate their land. Since partition, Pakistan asserts that less water has come down from India and that the time when water is made available in large quantities often fails to coincide with crop needs.

Meantime, Pakistan has built three canal links, totaling more than 225 miles and costing about $76.3 million, to help alleviate shortages and distribute more evenly the water it receives from the tributaries of the Indus. These canal links are designed to shift water from one river to the other as the need arises. One canal link, the Marala-Ravi, will irrigate about 238,000 acres around Sialkot and Sheikhupura.

The Indus is one of the world's largest rivers and forms the very backbone of the economy of West Pakistan. A series of dams are being constructed to harness the waters of this great river for irrigating the parched lands through which it flows.

The Ghulam Mohammed Barrage on the lower Indus is one of Pakistan's greatest irrigation projects. The huge 3,000-foot barrage will provide irrigation water for 1.9 million acres of cultivable land.

Ranking closely in importance is the Thal irrigation project on the Indus west of Lahore. There, some 800,000 acres of new land have been brought under cultivation in the past few years, and the potential for the area is placed at 5 million acres. Experiments indicate that rice and sugarcane are the crops best suited to the newly irrigated land in the Thal.

Several other projects in West Pakistan will, when completed, provide improved and controlled water supplies to existing irrigated areas and/or add materially to the area under irrigation. Among these the principal are the Taunsa Barrage project, Gudu Barrage, Warsak High Level canal, and the Rasul Tubewell project.

Salinity and waterlogging are resulting in lowered yields on millions of acres of irrigated land in West Pakistan. In some of the older irrigated areas the salinity problem is acute, and large tracts have been forced completely out of agricultural production. The present rate of land deterioration due to salt infestation and high water tables must be checked if further declines in yields are to be prevented. The government is keenly aware of the problem and the Five-Year Plan makes provisions for attacking it. However, a substantial and costly program will have to be launched if present trends are to be reversed.

In *East Pakistan* there are three major projects now under way.

The Ganges-Kobadek Scheme is intended to drain monsoon flood waters from about 2 million acres of land lying south of the Ganges River in Kushtia, Jessore, and Khulna districts. A 200-mile canal system will also provide irrigation water from the Ganges in the dry season. The project will include three barrages on these rivers. The first phase, scheduled to be completed in 1958, will improve a quarter million acres, permitting an increase in food grain production by an officially estimated 66,000 tons each year.

The Teesta Barrage project consists of a barrage across the Teesta near Gaddimari—a 30.5-mile-long canal on the right bank of the river tailing off into the River Karatoya near Kansaman—and a network of branch canals and distributaries commanding an area of about 1,250,000 acres of land. It has been estimated that following completion some 300,000 to 350,000 tons more of food grain can annually be produced in the area.

The other major project under way in East Pakistan is the Karnafuli Dam and power stations. Although primarily for electric power generation the project will also irrigate an estimated 1 million acres of land. The dam is to be built across the Karnafuli River 30 miles upstream from Chittagong.

Village Aid.—The cultivators of Pakistan must learn, accept, and be able to carry out improved farming practices if the country is to exploit its agricultural potentials and rapidly increase farm production. Therefore the degree of success of Pakistan's Village Aid program will in a very large measure determine the success of the agricultural expansion plans and the general welfare of the mass of the Pakistani people.

The program is designed to help the villagers solve their individual and community problems, and aims at coordinating the resources of the government and the people in an effort to reconstruct village life. The specific objectives of the Village Aid program are officially stated as follows:

(1) To raise rapidly the productive output and real income of the villager by bringing to him the help of modern techniques of farming, sanitation and health, cooperatives, cottage industries, etc.,

(2) To multiply the community services available in rural areas, such as schools, dispensaries, health centers, hospitals, and sources of pure water supply,

(3) To create a spirit of self-help, initiative, leadership, and cooperation among the villagers,

(4) To create conditions for a richer and higher life through social activities, including recreational facilities, both for men and women,

(5) To coordinate the working of the different departments of the government and to extend their activities into the villages by means of extension services, and

(6) To give a welfare bias to the entire administrative structure of the government.

The Village Aid program is built around 9 institutes, each training 60 to 120 village workers a year. At the end of his training, each Village Aid worker is assigned to serve a small group of villages, working with people on their farming and other problems. He is expected to assist the villagers to—

(1) Organize themselves for planning and action,

(2) Define their common and individual problems and needs,

(3) Make group and individual plans to meet their needs and solve their problems,

(4) Execute these plans with a maximum of reliance upon village resources, and

(5) Supplement village resources when necessary by securing services and material from the development agencies of government.

The Village Aid worker functions as the link (heretofore missing) between the villagers and the departments of government concerned with development and improvement programs. He is expected to serve these departments as an organizer, an educator, a ready tool to be used in carrying out their functions in the rural areas. Village Aid, in turn, depends upon these departments to supply trained technicians, to carry out research and prepare the results for dissemination, and to supply the technical services required in village development. Thus Village Aid and the other agencies of government must work together, if either is to serve adequately the villagers of Pakistan.

If the villager is to learn improved agricultural practices it will be from the Village Aid worker. If the villager is to be inspired to adopt these practices and push for greater production from the land, he will get his inspiration from the Village Aid worker. Thus, this program must succeed if agricultural production in Pakistan is to progress toward the targets of the Five Year Plan.

Review of Progress

In its program for economic improvement, Pakistan has made good progress in some sectors but little in others. In industry, particularly light industries, the gains since independence have been impressive. Industrial production more than quadrupled from 1950 to 1956. On the other hand, only scattered and relatively minor gains have been made in agriculture. Many of the Five Year Plan projects that are of vital concern to agriculture are well behind schedule.

Industry.—On partition, Pakistan inherited practically no industry, although it produced much of the raw materials for several of the principal industries of undivided India, particularly the jute and cotton textile mills. In order to achieve a more balanced economy, the Government of Pakistan has since 1947 pushed an industrialization program. It has assumed jurisdiction in certain industries, but has also had considerable success in encouraging private Pakistan enterprise and to a lesser degree foreign capital to play an active part in the development of industry. In 1952 the government established the Pakistan Industrial Development Corporation to set up certain industries considered of particular importance to the Pakistan economy. The industries entrusted to the P. I. D. C. are jute, paper, heavy engineering, ship building, heavy chemicals, fertilizers, cement, sugar, textiles, pharmaceuticals and dyestuffs, and natural gas and development of power therefrom. Some 33 projects are scheduled to be completed and in operation by the end of 1956–57.

The textile industry is sometimes called the industrial miracle of Pakistan. In 1948 there was not a woolen mill in the country, and cotton cloth production totaled an insignificant 88,000 yards. Today Pakistan produces enough coarse cotton cloth to meet its own needs and has a small surplus for export. Furthermore, five new woolen mills have been built, assuring self-sufficiency in woolens. The remarkable rise in cotton textiles has been primarily the work of private enterprise with such substantial encouragement from the government as tax incentives and foreign exchange allocations. The government through the P. I. D. C. has financed and built the woolen mills.

Many other light industries have made significant progress. At partition

Pakistan had no jute mill. Today it has 11, including the largest in Asia—the Adamjee Jute Mills near Dacca. In addition, rubber tire and tube production increased from 112,000 units in 1950–51 to 1,990,000 in 1955–56, cement output rose from 414,000 tons in 1950 to 700,000 in 1955, and refined sugar production trebled between 1950 and 1956. Numerous other examples could be cited.

This significant growth of industry is an encouraging part of the Pakistan economic picture. However, the country's domestic economy and earnings from exports are still based, and will for many years continue to be based, largely on agriculture. A fact of considerable significance from the standpoint of Pakistan's exports is that the new industries are absorbing much of the raw cotton and other farm products that formerly were shipped abroad.

Agriculture.—Although agriculture is the principal basis of the Pakistan economy and despite a moderate increase in the cropped area, production has shown no real progress since independence. In fact, total production of food grains, the principal element of the Pakistani diet, has actually declined. The same is true for pulses, another important item in the diet. And production of jute, the leading export crop, has gone down.

Fortunately for Pakistan the production of several important crops has shown an increase. The most important of these is cotton. Others include tobacco, sugarcane, and tea.

There are many reasons why agriculture has failed to make any notable progress during the past 10 years. These appear to be among the more important: (1) There has been little progress in arousing the villagers to undertake programs for expanding farm production, (2) returns on capital invested in agriculture are below those on alternative investments, (3) the educated class tends strongly to look down on agriculture as a profession, (4) there is a shortage of trained technical and administrative personnel, (5) the productive capacity of some land has declined because of salinity and waterlogging, (6) irrigation water problems have resulted from partition, (7) private capital is uncertain regarding land reform programs, (8) delays have been encountered in the construction of some of the major irrigation and land reclamation projects, and (9) the country lacks political stability.

Outlook

The targets for agricultural production are in line with the minimum needs of the country if progress is to be made in putting the economy on a more self-sustaining basis and a start made toward lifting the level of living. Also, they are in line with the physical capabilities of the country. Nevertheless, it is doubtful whether any of the major ones will be reached within the period of the Five-Year Plan. Some changes are occurring, but conditions that have held back agricultural progress in the past have improved only slightly.

The political situation in Pakistan is rather unsettled. Changes of government have been frequent, and have had a detrimental effect on the whole economy, particularly on agriculture. Until political conditions stabilize, the country's agriculture will not develop its full potential.

Although the agricultural outlook is not an optimistic one for the immediate future, some increase in farm production is expected in the Plan period. Also, prospects are reasonably bright for laying the groundwork for substantial increases in the years beyond the Plan.

Both cotton and food grains will probably fall short of the targets set for them. Cotton is the only major agricultural commodity produced in West Pakistan that has been exported in substantial amounts. It is the country's second most important export. Thus, for the country's economic development, exports of cotton or cotton goods need to be maintained. Nevertheless, immediate prospects for expansion are not too optimistic. Though the Plan foresees a 38-percent increase in production, around 10 or 12 percent is the best that can be expected by 1960. Acreage expansion is limited by water resources and the pressing need to maintain and increase food grain production. Yields could be increased, but, with cotton growing in Pakistan still relatively primitive in technique, no big gains are likely to be made for some time. Yet it would be wrong to dismiss Pakistan's cotton potential lightly. In a few years the completion of irrigation projects should make it possible to expand the area under cotton.

If the Village Aid program is successful, production techniques will improve. Thus, within 10 or 12 years, given favorable conditions, the country could reasonably increase cotton production by 100 percent. However, because of the raw material needs of Pakistan's new textile industry, it will be 5 to 10 years before the volume of raw cotton available for export can again approach the 1951–55 level. It appears definite that for at least several years to come United States raw cotton exports will not encounter increased competition from Pakistan.

Self-sufficiency in foodgrains will probably not be attained under the Plan, so imports will be needed except in years of excellent harvests. The outlook for rice appears somewhat more favorable than for wheat, partly because much of the land being lost to salinity and waterlogging is in the major wheat growing area. Rice is being planted on some of this saline land; the additional water used on this crop helps leach out the salts and keep the land in production.

Flue-cured tobacco production is likely to increase and some improvements in quality can be expected, as Pakistan's growers become more familiar with this relatively new crop. However, little change in import needs for United States leaf for blending is anticipated.

Sugarcane production is likely to increase, too, and the growing of sugar beets will probably soon get under way on a commercial basis. Limited increases in production will probably materialize for a few other crops that are grown for domestic consumption.

Jute and tea may approach the targets established for them in the Plan. This is important to the Pakistan economy, as jute is the major earner of foreign exchange and tea is also one of the leading export items.

Pakistan's exports of commodities that might compete with United States farm products in world markets are not expected to increase significantly in the next few years. However, some increase in the export of jute and jute goods, tea, and certain other commodities, combined with higher domestic production of consumer goods normally imported in large volume, may improve somewhat the difficult foreign exchange situation that has faced Pakistan in recent years. This could result in a larger commercial market in Pakistan for a few United States farm products.

Afghanistan

Afghanistan is an isolated landlocked kingdom of approximately 12 million inhabitants, located on the northwest corner of the geographical area commonly referred to as South Asia. It is bounded on the south and east by Pakistan, on the west by Iran, and on the north by the USSR and China. Its total area has never been definitely established, but is estimated at more than 246,000 square miles, about the size of the State of Texas.

The largest cultivated area of Afghanistan is in the north near the Oxus River. To its south lie the towering Hindu Kush Mountains, which isolate the northern provinces from the rest of the country. All of central Afghanistan is mountainous, with an average elevation of about 6,000 feet. There, cultivation is largely restricted to small mountain valleys. The most productive agricultural land is in the east-central part of the country, between Kabul and the Pakistan border. Southwestern Afghanistan is desert, with extreme heat in summer and cold in winter. It is in this area, however, where major effort is being made to irrigate and bring under cultivation a substantial acreage of land.

Afghanistan has suffered the fate of many other isolated mountain areas. Progress has largely passed the country by. The mode of living of most of

TABLE 11.—*Afghanistan: Estimated production of principal food crops, 1953–55*

Commodity	1953	1954	1955
	1,000 metric tons	*1,000 metric tons*	*1,000 metric tons*
Wheat	2, 089	2, 018	2, 168
Corn	618	660	729
Rice	316	279	316
Barley	279	270	281
Potatoes	108	113	116
Sugar beets and cane	58	58	53

Ministry of National Economy, Government of Afghanistan.

the people is extremely primitive. Only a small minority are literate. In consequence, it is difficult to obtain complete information regarding many aspects of the country's economy, and few thoroughly reliable statistics are available on Afghanistan.

Agricultural Situation

Only about 3 percent of Afghanistan's total acreage is cultivated, but the variety of climate and elevation permits the growing of both Temperate and Tropical Zone products.

Wheat is the most important crop; roughly 2 million metric tons are produced annually. Afghanistan also produces over a half million tons of corn, nearly a third of a million tons of rice, and a similar quantity of barley and miscellaneous grains. Other field crops include cotton, sugar beets, tobacco, opium, castor, and sesame. Clovers for grazing are extensively grown in irrigated areas. Fruit growing is important—grapes, apricots, apples, peaches, pears, quinces, melons. A variety of nuts, principally walnuts, almonds, and pistachios, and vegetables are produced.

The principal livestock raised are karakul sheep, fat-tailed sheep, goats, horses, cattle, camels, donkeys, chickens, and ducks. The annual production of karakul skins is estimated at about 2 million.

Afghanistan is almost completely a supplier of raw materials and a market for consumer and developmental goods. Principal exports are dried and fresh fruits, karakul skins, cotton, and raw wool. Although the volume is relatively small, some Afghan cotton exports to Japan and elsewhere are competitive with United States cotton exports. Principal imports are

TABLE 12.—*Afghanistan: Exports by quantity and estimated value, 1954–55*

Commodity	Unit	Quantity	Estimated value
			1,000 U. S. dollars [1]
Karakul skins	1,000 pieces	1, 847	14, 274
Broadtail furs	do	144	121
Hides and skins	do	1, 044	571
Sheep casings	do	1, 065	335
Wool	Metric tons	5, 258	7, 113
Cotton	do	12, 545	9, 366
Fresh fruits	do	28, 460	2, 750
Dried fruits	do	42, 837	10, 271
Oilseeds	do	4, 121	585
Carpets	1,000 square meters	228	1, 124
Other			899
Total exports			47, 409

[1] Converted from Afghanis on basis of available information regarding Afghanistan's multiple exchange system. Rates used—Afghanis to dollar: karakul, 21.57; cotton and wool, 26.40; all others, 42.00.

Ministry of National Economy, Government of Afghanistan.

textiles, motor vehicles and parts, machinery, petroleum, leather goods, tea, and sugar.

The Government of Afghanistan has projects under way and others in the planning stage designed to increase the country's agricultural production. Major emphasis is being placed on boosting production of export commodities in order to increase the country's foreign exchange earnings. At the moment, greatest emphasis is being placed on increasing the outturn and export of cotton and fruits (particularly raisins).

Development Programs

At the end of World War II Afghanistan possessed a comfortable surplus of foreign exchange and exportable commodities. Afghan officials saw in this situation an opportunity to expand and accelerate the modest development program (mainly light industries) started some years earlier. A Five Year Plan was prepared, but it proved too ambitious for the country to finance from its own resources. Consequently in 1948 the Afghan Government applied to the Export-Import Bank for a loan of $56 million. In 1949 the bank approved a loan of $21 million for work in the Helmand Valley. Again, in 1954, it lent Afghanistan $18.5 million, most of it for the same project.

The Helmand Valley reclamation and resettlement project is by far the largest single project to be undertaken in Afghanistan. Located in the arid southwest part of the country, it involves construction of major dams on the Arghandab and Helmand Rivers and the construction of reservoirs, subsidiary dams, main canals, and a network of irrigation channels. Implementation of the project, which began in 1946, is not scheduled to be completed for at least another 10 years. Upon completion it is expected to provide irrigation for around 800,000 acres.

Among other economic development projects receiving government encouragement are cotton gins and other agricultural processing installations, several small irrigation projects, hydroelectric development, and cotton textiles and other light industries. Also, an agricultural extension-education program has been started. Other fields receiving assistance are communications, education, public health, and community development.

Afghanistan has in the past few years received some development assistance from several foreign sources, principally the United Nations, the United States, and the USSR. Assistance from agricultural technicians of the Food and Agriculture Organization of the United Nations has been of considerable influence in bringing about the limited progress made in getting improved practices adopted by Afghan farmers.

Five Year Plan.—Afghanistan's agricultural and other economic projects are now being carried out within the framework of the country's Five Year Plan (1956–57 to 1960–61). The completion of this Plan was first announced in January 1956; it has been officially stated that it will cost the equivalent of approximately $250 million to carry out. Of the total,

$100 million is to be obtained as a loan from the USSR. It is hoped that a sizable loan can be obtained from the World Bank, that considerable assistance will be forthcoming from the United States under its foreign aid program, and that additional loans and grants may be obtained from other foreign countries.

The stated objectives of Afghanistan's Five Year Plan is to raise the standard of living of the people and improve the general welfare of the public by means of planned and controlled economic development. Top priority is given to agricultural development; the government planners apparently fully realize that for the foreseeable future Afghanistan will continue to be primarily an agricultural country dependent for its domestic income and foreign exchange upon its agricultural products.

Transportation and communications are also given high priority. Afghanistan has been described as a nation without roads; this is not far from fact. It is proposed to increase the number of trucks in operation from an estimated 5,000 in 1956 to 25,000 in 5 years. If this number can be imported, it will raise serious problems of fuel, servicing facilities, tires, and replacement parts, to say nothing of roads to run them on. Also considered vital are expansion and improvements in commerce. In this field, top priority is given to expanding the quantity and improving the quality of agricultural exports. Such steps are considered essential to financing economic development under the Plan as a whole. The commerce section of the Plan gives considerable attention to developing these export commodities: cotton, wool, karakul, fruits, and opium.

As in the programs of most underdeveloped countries, the Afghan Five Year Plan places much emphasis on expanded education, health, and social welfare facilities. However, in contrast to the plans of many countries, Afghanistan's Plan relegates industrial development to a place of secondary importance.

Production Targets

An ambitious program of expanded cotton production is laid out. The Plan indicates that cotton production rose from 3,800 metric tons in 1951 to 15,000 metric tons in 1956. Production is projected to reach 50,000 tons by 1960. The Plan points out that there is a need for improving the varieties of cotton planted and enforcing better sorting, grading, and baling practices. It is recognized that over a half million acres will be required if production is to reach the projected level.

The plan for karakul, Afghanistan's most important earner of dollar exchange, is to increase production by 1 million skins—from approximately 2 million in 1956 to roughly 3 million in 1960.

For wool, the Plan proposes to institute a number of improvements in production and handling methods, including better washing, shearing, and baling practices. Present yearly wool production is estimated at 8,000 tons, 6,000 of which are exported and 2,000 used domestically. The target is for wool exports to expand to 7,000 tons by 1960.

Fruit exports now account for nearly 30 percent of Afghanistan's foreign exchange earnings. The goal set under the Five Year Plan is to export a minimum of 25,000 tons of fresh fruit and 30,000 tons of dried fruit during each of the Plan years. Improvements in fruit are centered around proposals for better horticultural methods, more effective combatting of plant diseases, and better production, packaging, and marketing practices.

The Plan also calls for increased opium production, aimed at earning $1 million in foreign exchange per year. In order to accomplish this, opium production is to be encouraged in Badakhshan, Herat, and Eastern Province. The Plan points out that Afghanistan has been making concerted efforts in the United Nations to obtain recognition as an authorized opium exporter, and it assumes that this recognition will be forthcoming. In preparation for higher output and United Nations' recognition, Afghanistan has recently passed an opium control law and has organized a government-controlled monopoly for the opium trade. The Plan also calls for investigating the feasibility of manufacturing sedative drugs in Afghanistan in order to conserve foreign exchange now being expended on pharmaceuticals of this type.

The Plan hopes to raise sugar beet production, too—from 30,000 tons to 40,000 tons within 2 years. It also aims at raising sugarcane production, but sets no definite target. Other fields of agriculture to be pushed are wheat production, sericulture, apiculture, improvement in wild olives and citrus fruits, dairy, poultry, and sheep production, and horse and mule breeding.

Development Methods

Since the Afghan Five Year Plan recognizes that agriculture is the principal natural resource of the country, it anticipates that the largest share (25 percent) of the funds to be spent on Plan projects will be in this field. The agricultural section of the Plan starts from the premise that most of Afghanistan is arid, and therefore the principal agricultural development needs center around water and water utilization. Secondary needs recognized in the Plan are the combatting of animal and plant diseases and pests, the improvement of cultural methods, the production and use of improved seeds, the improvement of livestock breeding practices, and the widespread dissemination of agricultural information to farmers.

The Five Year Plan for Agriculture goes into considerable detail regarding the prospect of the Helmand Valley Development project. It emphasizes that any conclusion regarding the wisdom of undertaking this large project, whether optimistic or pessimistic, is premature and cannot be more than a surmisal. It does point out that the Helmand Valley project represents a large investment by Afghanistan and that if these funds had been used for smaller development projects the economic results would undoubtedly have been more promptly felt by the country.

According to the Plan the Helmand Valley Development will produce over 300,000 acres of new cultivable land by 1960. The statement is made that the average cost per new acre in the Valley will run about $200 and that the annual income per acre will amount to about $140.

The Plan also lists seven other irrigation projects to be completed by 1961. Cost estimates for these range from $1.2 million to $25 million. The total for the seven is some $52.3 million.

Outlook

The program for agricultural development outlined in the Five Year Plan seem to be a reasonable approach under the circumstances in Afghanistan. Some progress can be expected, but a rapid increase in total agricultural production should not be anticipated. Conditions arising from the country's centuries-old isolation from progress will, for many years, slow down gains in production that might be physically possible to achieve. Leading among these conditions are the poverty of the masses, 95-percent illiteracy, and the very few roads.

Afghanistan must boost its foreign exchange earnings if imports of essential development and consumer goods are to be made without its becoming unduly dependent on foreign aid. Obligations to repay the World Bank, Soviet, and other foreign loans cannot be met unless foreign exchange earnings are increased well above the level of recent years. Afghan officials are fully cognizant of the need for rapidly boosting these earnings, and much of the current planning is directed toward this end. They are also aware that the only hope Afghanistan has of accomplishing this objective is by increasing exports of farm commodities.

Thus, higher production for export is being pushed, primarily for cotton, karakul, wool, and fruits. It appears rather certain that the Afghans believe that increasing the production and export of cotton offers the best immediate chance of adding to the country's foreign exchange earnings. Therefore, cotton production is receiving top priority in the allocation of development resources. Much of the newly irrigated land is going into cotton. Production has already increased substantially, and probably will continue to increase over the next few years. By 1961, exports will likely be double to treble the level of some 50,000 bales (500 pounds net) shipped in 1954–55. A substantial part of that increase is expected to go to the Soviet Union. Despite the larger crops expected, Afghanistan's production of cotton will continue to be such a small part of the world total that it will have only negligible influence on total world supplies and will not materially affect the competitive position of United States cotton.

Some increase, too, in the average annual outturn of karakul skins will probably occur as a result of improved practices introduced by the Afghan Government and FAO. It appears unlikely, however, that it will approach the 1 million skins visualized in the Five Year Plan. The government price to producers is too low to encourage a big expansion, and the steady increase in cultivated land in the north interferes with grazing of sheep.

For wool production and exports, the moderate increase of 1,000 metric tons by 1961 may well be achieved. Some improvement in quality is likely to result from educational programs under way and planned.

Also, a moderate increase in the production of fresh and dried fruits appears likely to occur, principally in the Helmand Valley and other areas newly brought under irrigation. Exports of fruit are also expected to go up moderately, as are foreign exchange earnings from them. Principal exports will include raisins, grapes, melons, dried apricots, and plums. The markets in India and Pakistan will probably take most of the increase. In fact the South Asian markets could take more fruit than is likely to be produced.

Wheat production is expected to increase to some extent, too. A major portion of the newly irrigated land in the Helmand will be used for wheat. Also, some progress can be expected in the introduction of higher-yielding varieties and improved cultural practices. However, the increase that may occur will not result in production in excess of domestic needs. In fact, some imports may continue to be needed in years of below-normal crops.

In the production of several other agricultural commodities small increases may occur—oilseeds, pulses, vegetables, citrus fruits, milk, and poultry and eggs, for example. The people now badly need much more of practically all kinds of foods, and the population is on the increase. Consequently, any boosts in production of these commodities will go to help satisfy domestic needs.

Ceylon

Ceylon is a tropical island nation of approximately 8.6 million inhabitants, immediately southeast of India. The island's total area is placed at 25,332 square miles, roughly the size of West Virginia. Ceylon is an independent nation, having been granted full sovereignty and Dominion status in 1948.

The coastal area of Ceylon is flat, but the central part is mountainous, with several peaks rising to more than 7,000 feet. Most of the agriculture is in the southwest one-fourth of the island known as the wet zone. The so-called dry zone––the north and east three-fourths of the country, which receives 50 to 75 inches of rain a year, mostly in a three-month period—is dry only in comparison to the wet zone, which receives 75 to 200 inches of rain per year falling on a practically year-round basis.

Agricultural Situation

The agricultural economy of Ceylon differs markedly from that of the other countries of South Asia. The country uses about two-thirds of its 4 million acres of agricultural land to produce tea, rubber, and coconuts for export. The other third of the cropland produces about 50 percent of the country's food requirements; about half is imported.

Tea and rubber are produced principally on estates in the higher lands of the southwest, and coconuts, mostly on small holdings in the lower lands of the wet zone. Tea is Ceylon's most important crop, and makes up about one-fourth of the world's output. Rubber is produced on about 660,000 acres and is second only to tea in value. Over a million acres are devoted to coconuts.

TABLE 13.—*Ceylon: Acreage and production of principal crops, 1953–56*

Commodity	Acreage			
	1953	1954	1955	1956
	1,000 acres	*1,000 acres*	*1,000 acres*	*1,000 acres*
Tea	574. 2	575. 5	565. 5	(1)
Rubber	657. 4	659. 2	661. 0	(1)
Coconut	1, 070. 9	1, 070. 9	1, 070. 9	(1)
Paddy rice [3]	809. 0	1, 022. 0	1, 092. 0	(1)

Commodity	Production				
	Unit	1953	1954	1955	1956
Tea	1,000 pounds	343, 033	366, 738	380, 013	339, 600
Rubber	Metric tons	100, 188	95, 438	95, 331	96, 915
Coconut	Million nuts	2, 223	2, 159	2, 339	[2] 2, 244
Paddy rice [3]	Metric tons	455, 681	645, 515	739, 347	584, 233

[1] Not available.
[2] Data for January–November.
[3] Harvested acreage.

Official crop estimates of the Government of Ceylon and other sources.

Most of the tea and rubber estates are managed by European companies and are efficiently operated. The peasant agriculture, on the other hand, is rather inefficient, partly because fragmentation has reduced the size of holdings to less than economic units.

Peasant agriculture produces most of the rice, the important subsistence crop, grown both in the wet zone and under irrigation in the dry zone. It is produced on more than a million acres; practically all of the country's irrigated land is devoted to paddy.

Ceylon has little livestock production except cattle for draft purposes.

Of the country's foreign exchange earnings, tea, rubber, and coconuts account for more than 90 percent. The United Kingdom is the principal outlet for tea, followed by Australia, Egypt, United States, Union of South Africa, and Iraq. Since 1952, most of Ceylon's rubber has been shipped to Communist China under a rubber-rice trade agreement with that country. Other outlets of significance have been the United Kingdom, United States, and West Germany.

Because Ceylon's agriculture is oriented toward the production of commercial crops for export, a large part of the island's food must be imported—roughly half of the rice, all of the wheat flour and sugar, and almost all the dairy products. Ceylon must also import cotton fiber and textiles and tobacco.

United States purchases of Ceylonese products greatly exceed sales. In 1955, United States imports from Ceylon totaled $35.5 million, of which tea accounted for $22.6 million, rubber $9.7 million, coconut products $0.5 million, cinnamon $0.4 million, other agricultural $1.1 million, and nonagricultural $1.2 million. On the other hand, United States exports to Ceylon in that year totaled $7.1 million consisting of dairy products $0.7 million, flue-cured tobacco $1.0 million, other agricultural $0.2 million, and nonagricultural $5.2 million.

Development Programs

Shortly after the end of World War II the Government of Ceylon began a program of accelerated capital investment and development. For a number of years the program was not fully defined, but its aims were generally sound. Between the attainment of political independence, in 1948,

TABLE 14.—*Ceylon: Exports and imports of principal agricultural commodities, by quantity and value, 1954–56*

	Quantity			Value		
	1954	1955	1956	1954	1955	1956
Exports:	*Metric tons*	*Metric tons*	*Metric tons*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*
Tea	163, 868	164, 309	(1)	235, 786	250, 788	219, 208
Rubber	94, 963	98, 727	(1)	59, 912	73, 573	61, 436
Coconut oil	70, 002	98, 788	(1)	21, 040	23, 791	20, 836
Copra	46, 764	69, 451	(1)	9, 544	12, 029	10, 288
Desiccated coconut	56, 091	58, 792	(1)	13, 912	11, 509	13, 616
Other coconut products				6, 655	7, 134	5, 330
Imports:						
Rice	402, 302	384, 987	(1)	57, 394	46, 515	55, 375
Wheat flour	203, 038	218, 655	(1)	19, 203	18, 123	14, 801
Curry stuffs	26, 185	28, 696	(1)	9, 037	8, 070	(1)
Sugar	1, 345	1, 436	(1)	12, 143	13, 295	20, 216
Evaporated, condensed, and dried milk	9, 230	9, 636	(1)	5, 887	5, 222	5, 143

[1] Not available.

Ceylon customs returns.

and 1954 much progress was made, including completion of much of the work on Ceylon's largest development project, the multipurpose Gal-Oya project, involving reclamation, irrigation, colonization (resettlement), and hydroelectric development.

Six Year Program.—In July 1955 the Government of Ceylon published its Six Year Program of Investment for the period October 1, 1954, to September 30, 1960. The Program calls for the expenditure of the equivalent of slightly in excess of a half billion dollars. This is planned public expenditure only; it does not include private development expenditures. Major categories of planned expenditure in order of relative cost are (1) irrigation and colonization (nonexport crops), (2) electric power, (3) other agriculture (nonexport crops), (4) education, (5) public utilities, (6) rehabilitation of export crops (mainly rubber), and (7) health.

Agricultural Expansion

Targets.—In Ceylon's development plan, agricultural production targets are given only in general terms. The leading single objective is to produce all the food necessary to take care of the estimated 3 percent annual increase in population. Since half the country's food is now imported, this means an ambitious 6 percent more food production per year. A second objective is to maintain and, if possible, increase the volume and improve the quality of the main export crops—tea, rubber, and coconut products. A third is to diversify peasant agriculture and bring about an increase in the production of cotton, tobacco, fruits, and animal products. A fourth is to up output of new or minor export crops like coffee, cocoa, spices.

Programs.—Ceylon's agricultural programs are in general designed to maximize farm production by improving the efficiency of existing agriculture and by opening up new lands. Education, research, and agricultural extension are the principal means to the first. Irrigation, jungle clearance, and resettlement are the means to the second.

A well-developed program of increasing food production is being administered by various government agencies. The Ministry of Agriculture and Food administers programs in agricultural research, extension, and education, cooperative organizations, increased food production, and small irrigation development. The Ministry of Land and Land Development, together with the autonomous Gal-Oya Development Board, plans, constructs, and develops irrigation projects, farms, and community projects. It also resettles farmers and operates and maintains the irrigation projects. The Ministry of Home Affairs, through its Rural Development Department, assists village rural development societies in building or repairing small irrigation facilities and village access roads. The Ministry of Education, through the Faculty of Agriculture of the University of Ceylon, provides higher education in agriculture and research and marketing studies on tea, rubber, and coconuts.

Ceylon has a rather highly developed pattern of services flowing to the village, including agriculture, cooperatives, and rural development. There is one agricultural agent for approximately every 1,000 farm families. Farm cooperatives are firmly established on a sound basis and are active in the fields of marketing, purchasing, and credit.

Major projects.—Ceylon's largest and most dramatic single development project to date is the multipurpose Gal-Oya Development. This project is based on the Gal-Oya Valley in the east of the island. It involves bringing under cultivation and irrigation about 140,000 acres, mostly reclaimed from virgin jungle, and installation of a 25,000-kilowatt hydroelectric power station. Some 250,000 people, about half of them small holders and their families, are to be settled in the area. Also, some large-scale farming units are to be operated by the board itself. The dam on which the whole project depends was completed in 1951. By 1956 approximately 70,000 acres—about half the expected total—was under cultivation. It is expected that about 50,000 more will be added by the end of 1958 and another 20,000 by the end of 1961.

During the 5 years ending September 30, 1955, the area under irrigation, including Gal-Oya, increased by 16 percent—from 606,000 acres to 701,000. In addition to Gal-Oya, work is under way on 18 smaller but so-called major schemes, which will add another 83,000 acres—all expected to be completed by the end of 1961. Numerous minor tank (pond) restorations are also under way and other new projects planned to be started in the interim, the total areas of which are not available.

Outlook

Ceylon has one of the highest standards of living in Asia. The major goal of economic planning is to maintain and improve this standard. This will be difficult at best because (1) population is increasing at the high rate of about 3 percent annually, and (2) Ceylon's present living standards resulted from extensive use of British capital and management skills prior to independence; these are now available on a rapidly descending scale.

Food production could be greatly expanded through increased yields on land now cropped and by developing new land for irrigated and non-irrigated farming in the largely unutilized three-quarters of Ceylon, the dry zone. Although well suited for rice and many other food crops especially when irrigation is available, conditions in the dry zone do not favor production of the main export crops. For these, potential expansion is largely limited to increasing yields on the present acreage.

Ceylon is making progress in its development program, but for the immediate future agricultural production is not expected to get very far ahead of population growth. The socialistic program of the government tends to discourage investment in agriculture by private capital—both Ceylonese and foreign. The government's policy of getting the controlling interest in

TABLE 15.—*Ceylon: Development of irrigation, 1950–55*

Year ending Sept. 30	Irrigated area			
	Major works	Minor works	Total	Accumulated total
	Acres	*Acres*	*Acres*	*Acres*
At end of 1950	209, 027	397, 040	606, 067	606, 067
Provided in 1951	8, 739	7, 307	16, 046	622, 113
Provided in 1952	15, 699	2, 444	18, 143	640, 256
Provided in 1953	20, 417	3, 701	24, 118	664, 374
Provided in 1954	17, 551	1, 858	19, 409	683, 783
Provided in 1955	15, 870	1, 319	17, 189	700, 972
Total at end of 1955	287, 303	413, 669	700, 972	700, 972

Various reports of Irrigation Department, Government of Ceylon.

all businesses operating in Ceylon into the hands of Ceylonese citizens restricts the investment of new foreign capital in agriculture and encourages the repatriation of old investments.

If world prices for its major export crops hold up, Ceylon will continue to be a substantial importer on a strictly commercial basis of rice, wheat flour, sugar, milk products, tobacco, and several other agricultural commodities. And it will continue to be a major exporter of tea, rubber, and coconut products.

United States imports from Ceylon are likely to continue to greatly exceed exports. The United States is in a position to supply most of the agricultural items imported by Ceylon, but it is confronted with a stiff competitive situation. Owing to the distance involved, shipping costs from the United States are greater than from the leading competitors—Australia, India, Burma, and Communist China. Of perhaps greater competitive significance is the preferential duty rates enjoyed by India and Australia in the Ceylon market. Thus, the United States faces major difficulties in expanding its sales of agricultural commodities to Ceylon.

Nepal

The little known and largely mountainous kingdom of Nepal is located northeast of India along the southern slope of the Himalaya Mountains. It is roughly 100 miles wide and 500 miles long, covering an area of approximately 54,000 square miles. Completely landlocked and cut off from the rest of the world by high mountains or other natural barriers, Nepal long remained a practically unknown territory, and one whose rulers actively discouraged foreign visitors and foreign ways. Thus, for generations the economy of the country remained virtually static. Only since 1951 has any tendency toward change occurred. A new government pledged to democratic and welfare objectives has come into power; Nepal has become a member of the United Nations; contacts with the outer world are multiplying; and foreign aid programs of increasing magnitude have been inaugurated.

About one-fifth of the country lies in the Terai Region of the Gangetic Plain next to India, but the other approximately 80 percent is rough and mountainous, with steep ranges crossing from east to west. Each succeeding range becomes higher. Along the northern border are several of the highest peaks in the world, topped by Mount Everest, which is over 29,000 feet. Many streams, some originating in the perpetually snow-covered mountains, flow south across the country into the Ganges system. The climate and vegetation vary from subtropical in the Terai, to frigid in the upper ranges of the Himalaya.

Agricultural Situation

At least 95 percent of Nepal's estimated 8.5 million people are dependent on agriculture for livelihood. Only 2 percent are literate. The majority derive a precarious living from crop and livestock production, often of inferior quality, on small holdings. Economic improvement of the country depends fundamentally upon agricultural improvement.

It is estimated that slightly more than 5 million acres of land are now under cultivation in Nepal. Of this total, it is believed that roughly 55 percent is in rice, 20 percent in corn and millet, 10 percent in wheat, 5 percent in potatoes, 5 percent in oilseeds, 2 percent in tobacco, 1 percent in jute, and 2 percent in other crops. Accurate estimates of total production are unavailable, but yields are low and have probably been on the decline. Most cultivators are able to produce no more than a bare subsistence for their families.

Nepal's total foreign trade is small. However, the country is now dependent on India for processed agricultural commodities and other consumer goods, foremost among which are India-made cotton textiles, salt, tobacco products, petroleum products, and metal goods. In return, Nepal exports to India rice, other grains, ghee (clarified butter), jute, linseed, mustard and rapeseed, and wool. In the past, trade between Nepal and the United States has been inconsequential.

Development Programs

In July 1956 the Nepalese Cabinet approved, in broad outline, a Five Year Plan for development. The Plan visualizes the expenditure of the equivalent of some $70 million over a period of 5 years. Nepal anticipates that roughly three-quarters of the total expenditure will become available in the form of economic grants from India, the United States, and Communist China. Considerable technical assistance is expected from the United Nations, India, the United States, foreign private foundations, and perhaps other foreign sources.

First priority under the Five Year Plan is given to extending and improving the country's meager transportation and communications system. Agricultural projects, including irrigation and village development, are second in order of planned expenditure. Other projects include public health, electric power, forestry, and education.

Agricultural.—The program for agriculture is broken down as follows: (1) Agronomy and demonstration farms, (2) horticulture, (3) botany and plant breeding, (4) plant and animal protection, (5) soil science, (6) agricultural tools, implements, and machines, (7) agricultural marketing, (8) livestock development, (9) dairy industry, (10) fisheries development, (11) soil and water conservation, (12) agricultural extension and public relations service, and (13) agricultural education.

Some of the projects for agriculture are designed to yield early results, and others to lay a foundation for future progress.

The activities considered most likely to produce early results are the production and distribution of better seeds—of cereals, vegetables, grasses, and forage crops; the introduction of more efficient farm equipment and tools; the introduction of better breeding stock; and the upbuilding and fuller use of the agricultural extension service.

Long-range programs considered of the greatest significance are the training of agricultural personnel, the developing of a more adequate governmental structure to assist agriculture, and the making of an assessment of the agricultural resources of the country.

Chief among other programs directly related to agriculture are (1) village development, (2) cooperative societies, (3) land reform, and (4) irrigation.

Village development is a multipurpose program aimed at improving all facets of the villager's life, but high priority is given to boosting farm output. In Nepal, the organization of cooperative societies is to be closely tied in with the village development program.

Land reform occupies an important place in the nation's program of social and economic betterment. The program outlined in the Plan includes measures for the greater protection of the rights of both tenants and hired workers, improving agricultural credit, consolidating fragmented holdings, and increasing the lands subject to tax.

Nepal is blessed with considerable water resources available for expanding the area under irrigation. Tributaries from the high mountains in the north join to form three main rivers cutting through valleys to the south—the Kosi in the east, the Gandaki in the central west, and the Karnali in the west. These each carry a minimum discharge of nearly 10,000 cusecs. Other rivers, discharging a minimum of 150 to 300 cusecs, are the Trijuga and Kamea in the east, the Bogmati in Kathmandu Valley, and the Tinan and Rapti in the west.

The present state of irrigation in Nepal is not satisfactory. Previously built works are in need of repair. A large number of smaller irrigation systems are overdependent on a steady rainfall supply and tend to be wasteful in the use of water. It is intended, under the Five Year Plan, to recondition two of the larger existing irrigation works (Jagdishpur and Judha), which are capable of watering about 9,000 acres of paddy; to complete seven projects now under way with Indian and American aid, which will when finished irrigate about 45,000 acres; and to undertake additional projects commanding some 200,000 acres of arable land.

Outlook

Although starting from a very backward state, conditions appear reasonably favorable for progress under the Five Year Plan. Some increase in agricultural production appears likely, but it is expected to be absorbed in the country since many people are underfed. Expected improvements in health conditions will almost surely result in increasing the rate of population growth and consequent need for more food and other farm products. Thus, Nepal's foreign trade in agricultural products is not likely to change materially for some years.

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